

REMARKS

Please reconsider the application in view of the above amendments and the following remarks. Applicant thanks the Examiner for carefully considering this application.

Election of Claims

Applicant notes that claims 1-131 and 151-200, which were withdrawn from consideration in response to the Restriction Requirement dated January 27, 2003, have not been canceled. Accordingly, claims 1-131 and 151-200 are canceled in this reply without prejudice or disclaimer.

Disposition of Claims

Claims 132-150 are pending in this application. Claim 132 is independent. The remaining claims depend, directly or indirectly, from claim 132.

Rejection(s) under 35 U.S.C § 103

U.S. PATENT NOS. 5,853,054 AND 5,607,025

Claims 132-135, 139-140, 143, 145-146, and 148-150 stand rejected under 35 U.S.C. § 103 as obvious over U.S. Patent No. 5,853,054 ("McGarian") in view of U.S. Patent No. 5,607,025 ("Mensa-Wilmot '025"). This rejection is respectfully traversed.

Independent claim 132 recites an expandable reaming tool that includes at least two reamer pads, at least one blade formed on the at least two reamer pads, and a plurality of cutting elements disposed on the blades. The at least two reamer pads are operatively coupled to a tool body and adapted to be displaced between a retracted and an expanded position. Further, selected ones of the plurality of cutting elements disposed on one of the at least two reamer pads are positioned so as to form a redundant cutting arrangement with other selected ones of the plurality of cutting elements disposed on a different one of the at least two reamer pads.

As stated in the background of the present application (page 3, paras. 7-8), a cutting structure of an prior art near-bit reaming tool is typically symmetrical and includes expandable pads that may be activated using hydraulic pressure. The pads

include cutting elements which, commonly, are PDC cutters. However, the PDC cutters are generally arranged in a relatively simplistic fashion, and the entire cutting structure is, consequently, relatively rudimentary in design.

As is further described in the background, the present invention advantageously provides a more advanced reamer cutting structure by incorporating advanced cutting structures often used on PDC drill bits. Accordingly, as shown and described for the present invention (Figures 2-3), an expandable reamer pad (32A, 32B) includes one or more blades (50) disposed thereon, where each blade (50) has a plurality of cutting elements (52) fitted on an edge of the blade (50) that contacts a well formation. Advantageously, because the plurality of cutting elements are disposed on an edge of the blade (32A, 32B), rather than on the reamer pad (32A, 32B), a clearance between a well formation and a surface of the reamer pad may be increased, thereby improving a cutting transport and drilling fluid circulation of the reaming tool (page 12, para. 44). Further, a geometric configuration of the blade may be adapted in order to advantageously provide maximum cutting element exposure (page 12, para. 45-46).

The Examiner asserts that, with the exception of redundant cutters, McGarian discloses the present invention as claimed. However, as is described with respect to McGarian and in contrast with the present invention, McGarian's reaming tool does not include expandable reamer pads having cutting elements fitted onto blades mounted thereto, but rather, includes cutting elements fitted onto blades (5A, 5B & 6A, 6B) which are *directly* attached to the reaming tool's body (2) via pivot pins (7,8) (see Figures 1, 2c, 5 & col. 2, line 55 - col. 3, line 67).

Further, the blades (5A, 5B & 6A, 6B) are hydraulically expandable from the reaming tool's body (2), and, thus, function in the same manner as the expandable pads of the prior art reaming tool described in the present application. Consequently, McGarian does not disclose an advanced cutting structure including blades as recited in claim 132 of the present application, but rather, a relatively rudimentary cutting structure as described for the prior art of the present application. Thus, this structure cannot render the present invention obvious.

Moreover, the Examiner asserts that it would have been obvious to combine McGarian with a redundant cutting feature provided by Mensa-Wilmot '025 in order to

arrive at the present invention. However, as is clear from McGarian, McGarian is primarily concerned with providing expandable reaming pads in a reaming tool rather than an advanced cutting structure. As a result, McGarian only discloses a simplistic cutting element arrangement as described for the present application's prior art, and does not show or suggest a need for blades or a redundant cutting structure as recited in claim 132. Conversely, Mensa-Wilmot '025 primarily relates to enhancing the placement and sizing of cutting structures on a drill bit, and, thus, does not and has no need to address the concerns present in an expandable reaming apparatus.

The Applicant respectfully notes that in order for references to be properly combined, there must be some showing, either implicit or explicit within the references themselves, that suggest making the combination in the manner suggested by the Examiner. In the present case, the Examiner has offered no such showing. Accordingly, there would be no motivation to combine the teachings of McGarian and Mensa-Wilmot '025.

In view of the above, McGarian and Mensa-Wilmot '025, whether considered separately or in combination, fail to show or suggest the present invention as recited in independent claim 132. Thus, claim 132 as amended is patentable over McGarian and Mensa-Wilmot '025. Claims 133-135, 139-140, 143, 145-146, and 148-150 are dependent on claim 132 and, thus, are allowable for at least the same reasons. Accordingly, withdrawal of this rejection is respectfully requested.

U.S. PATENT NOS. 5,853,054, 5,607,025, 5,979,576 AND 6,142,250

Claims 136 and 147 stand rejected under 35 U.S.C. § 103 as obvious over McGarian in view of Mensa-Wilmot '025 as applied to claim 132 above, and further in view of either U.S. Patent No. 5,979,576 ("Hansen") or U.S. Patent No. 6,142,250 ("Griffin"). This rejection is respectfully traversed.

As described above with respect to claim 132, McGarian and Mensa-Wilmot '025 fail to show or suggest the present invention as recited in amended claim 132. Further, Hansen fails to show or suggest that which is not provided in McGarian and Mensa-Wilmot '025. In addition, with respect to this three-reference combination, the Examiner has not shown a motivation to combine the cited references.

Thus, claims 136 and 147, which are dependent on claim 132, are patentable over McGarian, Mensa-Wilmot '025, and Hansen. Accordingly, withdrawal of this rejection is respectfully requested.

U.S. PATENT NOS. 5,853,054, 5,607,025, 5,979,576, 6,269,893, AND 6,516,293

Claims 137-138 and 144 stand rejected under 35 U.S.C. § 103 as obvious over McGarian in view of Mensa-Wilmot '025 as applied to claim 132 above, and further in view of either U.S. Patent No. 6,269,893 ("Beaton") or U.S. Patent No. 6,516,293 ("Huang"). This rejection is respectfully traversed.

As described above with respect to claim 132, McGarian and Mensa-Wilmot '025 fail to show or suggest the present invention as recited in amended claim 132. Further, Beaton and Huang, whether considered separately or in combination, fail to provide that which is not shown or suggested in McGarian and Mensa-Wilmot '025. Moreover, it appears that the Examiner is engaging in an improper "pick and choose" type rejection, where various features of the prior art are being selected without regard to their surrounding teachings.

Thus, claims 137-138 and 144, which depend from claim 132, are patentable over McGarian, Mensa-Wilmot '025, Beaton, and Huang. Accordingly, withdrawal of this rejection is respectfully requested.

U.S. PATENT NOS. 5,853,054, 5,607,025, AND 6,164,394

Claims 141-142 stand rejected under 35 U.S.C. § 103 as obvious over McGarian in view of Mensa-Wilmot '025 as applied to claim 132 above, and further in view of U.S. Patent No. 6,164,394 ("Mensa-Wilmot '394"). Claims have been amended in this reply to clarify the present invention recited. This rejection is respectfully traversed.

As described above with respect to claim 132, McGarian and Mensa-Wilmot '025 fail to show or suggest the present invention as recited in amended claim 132. Further, Mensa-Wilmot '394 fails to show or suggest that which is not provided in McGarian and Mensa-Wilmot '025. Thus, claims 136 and 147, which are dependent on claim 132, are patentable over McGarian, Mensa-Wilmot '025, and Mensa-Wilmot '394. Accordingly,

withdrawal of this rejection is respectfully requested.

Conclusion

Applicant believes this reply to be fully responsive to all outstanding issues and place this application in condition for allowance. If this belief is incorrect, or other issues arise, do not hesitate to contact the undersigned or his associates at the telephone number listed below. Please apply any charges not covered, or any credits, to Deposit Account 50-0591 (Reference Number 00516.089001).

Respectfully submitted,

Date: 9/8/03

^{45,925}
Jonathan P. Osha
Jonathan P. Osha, Reg. No. 33,986
ROSENTHAL & OSHA L.L.P.
1221 McKinney Street, Suite 2800
Houston, TX 77010

Telephone: (713) 228-8600
Facsimile: (713) 228-8778

53011_1